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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/748,506 | 12/26/2000 | Koji Hayashi | 10449-032001 | 4085 |

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FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

CHU, KIM KWOK

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2653

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,506

Applicant(s)

HAYASHI ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 8/11/03 (paper 10).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-5 is/are allowed.
- 6) ☒ Claim(s) 6 and 11 is/are rejected.
- 7) ☒ Claim(s) 7-10 and 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Remarks

1. Applicant's Remarks filed on August 11, 2003 (paper 10) have been fully considered.

(a) The added new independent claims 6 and 11 do not have the amended allowable features as in claim 1; and

(b) claims 6 and 11 are rejected by the prior art of Shinada because claims 6 and 11 have subject matters similar to the original claim 1.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

3. Claims 6 and 11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Shinada (U.S. Patent 5,436,875).

Shinada teaches a controller for controlling interruption and restarting of data writing to a recording medium having all of the elements and means as recited in claim 6. For example, Shinada teaches the following:

(a) as in claim 6, the data written to the recording medium 2 is stored in a buffer memory 18 (Fig. 1);

(b) as in claim 6, an encoder 14 connected to the buffer memory 18 for encoding data, which is read data from the buffer memory to generate recording data (Fig. 1);

(c) as in claim 6, a clock generator 10 connected to the encoder for generating a system clock and providing a system clock to the encoder to operate the encoder (Fig. 1; system controller 10 inherently has a system clock which is used to activate the encoding process);

(d) as in claim 6, a decoder connected 14 to the clock generator for decoding the data written on the recording medium to generate decoded data (Fig. 1; system controller 10 inherently has a system clock which is used to activate the decoding process);

(e) as in claim 6, a system control circuit 10 connected to the encoder 14, the clock generator 10, and the decoder 14, for deciding whether the encoding of the encoder and the decoding of the decoder are synchronized (Fig. 1; system controller 10 decides the overflow/underrun of memories 18 and 22);

(f) as in claim 6, the system control circuit 10 starting to write (recording mode) the recording data to the recording medium from the encoder when the encoding of the encoder and the decoding of the decoder are synchronized subsequent to the interruption of the recording of data (Fig. 5A; step SP6,

encoding and decoding synchronization means the system read/write mode is normal); and

(g) as in claim 6, the clock generator suspends to provide the system clock to the encoder (SP 24, no recording of data when encoder 14 is suspended) until the decoding (SP11, read out data) catches up with the encoding, when the decoding of the decoder is delayed from the encoding of the encoder during synchronization of the encoder and the decoder (Figs. 5A and 5B; when memory 18 is under a fixed value, reading of data stop and the system switch to a data reproducing mode; decoding is delayed from encoding because data is encoded first for a recording mode and then decoded later for a reproduction mode).

4. Claim 11 has limitations similar to those treated in the above rejection, and is met by the reference as discussed above. Claim 11 however also recites the following limitation which is also taught by the prior art of Shinada:

(a) as in claim 11, the controller controls the interruption of the data writing to the recording medium when the buffer memory is in a state in which buffer underrun may occur and controls the restarting of the data writing to the recording medium when the buffer memory is in a state in which buffer underrun is no longer likely to occur (Figs. 5A and 5B; steps SP7, SP10, SP18 and SP24).

Allowable Subject Matter

5. Claims 1 and 3-5, are allowable over prior art.

6. Claims 7-10 and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 1, 7 and 12, the prior art of record fails to teach or fairly suggest a controller for controlling interruption and restarting of data writing to a recording medium having the following features:

(a) a lock generator generates a first system clock in accordance with the decoding of the decoder, generates a second system clock based on a reference clock having a predetermined frequency, provides the first system clock to the encoder until the encoding of the encoder and the decoding of the decoder are synchronized, and provides the second system clock to the encoder after the encoding and the decoding are synchronized.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9306 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032.

Kim-kwok CHU
Examiner AU2653
October 30, 2003

(703) 305-3032

William Korzuch
WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600